

STATION	W245CB	FM TRANSLATOR
LOCATION	TALLAHASSEE, FL	
CHANNEL	FM TRANSLATOR	245

CALCULATED FOR
ERP OF 250 WATTS (0.25 KW) H & V

W245CB
TALLAHASSEE, FL
FM TRANSLATOR

COMPUTED LINE LOSSES - BASED ON MANUFACTURES TABLES AT OPERATING FREQUENCY

DESCRIPTION AND LENGTH NEAREST FOOT	SIZE/TYPE	LENGTH	EXTRA LOSS (dB) (IF ANY)	SECTION LOSS (dB)	TOTAL (dB)
JUMPER ANT	TRANSMISSION LINE		0	0.000	0.000
VERTICAL RUN	TRANSMISSION LINE	1/2" FOAM FEET 225.00	0	1.526	1.526
BLD TO TOWER	TRANSMISSION LINE	1/2" FOAM FEET 30.00	0	0.203	0.203
JUMPER TRANS	TRANSMISSION LINE		0	0.000	0.000
MISC ANT/LINE/TERMINATION CONNECTOR LOSSES	QYN	2.00	0	0.031	0.031

FM	245	CH
FREQ:	96.9	MHz

FREQUENCY SENSITIVE COMPONENTS		
	DB PER 100 FT	SYSTEM JUMPER AT ANTENNA
0.6780	DB PER 100 FT	VERTICAL RUN ON TOWER
0.6780	DB PER 100 FT	HORIZONTAL RUN TO TX BLD
	DB PER 100 FT	SYSTEM JUMPER AT TRANSMITTER
0.0156	DB PER PAIR	TERMINATING CONNECTOR LOSSES
Insertion Loss = 0.05 X sqrt (freq GHz)		

TOTAL FEET (MIXED) 255.00

COMPUTED SYSTEM LOSSES

SUBTOTAL 1.760

dB Line Loss (with jumpers, line, and connector losses) from above

CLIENT PROVIDED LOSSES (IF ANY)

0.000

dB additional losses (Bandpass filter Telewave TBPC 1008-1)

0.000

dB additional losses

TOTAL 1.760

Total System Loss in dB

66.68% Transmission System Efficiency Factor = Eff (%)

COMPUTED TPO NEAREST WATT

391

0.250 kW	-6.021 dBk	STATION MAXIMUM ERP
0.959 X (Gain)	-0.182 dBd	ANTENNA GAIN PER ANT SPEC SHEET
0.261 kW	-5.839 dBk	ANTENNA INPUT
0.130 KW	1.760 dB	SYSTEM TOTAL LOSSES
0.391 kW	-4.079 dBk	TRANSMITTER POWER

ANTENNA SPECIFIED

MAKE	SWR
MODEL	FM1-2
BAYS	2
SPACING	1.00
MODE	NON-DA
POLARIZATION	VERTICAL
ANT GAIN	0.959

T Z SAWYER TECHNICAL CONSULTANTS

Tel.: (703) 848-2130
www.tzsawyer.com
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105%	0.411	TPO HIGH LIMIT
100%	0.391	NOMINAL
90%	0.352	TPO LOW LIMIT

Math Proof Check

TPO X EFF X ANT G = ERP
0.391 66.68% 0.959 0.250